



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,238	08/31/2001	Shrjic Tzeng	58269.00014	1315
32294 7590 07/11/2007 SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182			EXAMINER MOORE JR, MICHAEL J	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 07/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/943,238

Applicant(s)

TZENG, SHRJIE

Examiner

Michael J. Moore, Jr.

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 16-23 is/are allowed.
- 6) ☒ Claim(s) 11 is/are rejected.
- 7) ☒ Claim(s) 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. (U.S. 6,754,216) ("Wong"). Wong teaches all of the limitations of the specified claim with the reasoning that follows.

Regarding claim 11, "designating a first plurality of ports of a first switch by a first numbering scheme" is anticipated by buffers 0-8 (ports with first numbering scheme) of fabric access devices (FAD) 414, 416, and 418 of Figure 4 that are part of the switch fabric 300 (first switch) of Figure 3.

"Designating a second plurality of ports of a second switch by a second numbering scheme" is anticipated by port interface devices 0-7 (ports with second numbering scheme) of port interface device (OCTOPID) groups 440, 442, 444, 446, 448, 450, and 452 of Figure 4 that are part of the Ethernet switch system 350 (second switch) of Figure 3.

"Coupling a first link port of the first plurality of ports to a second link port of the second plurality of ports" is anticipated by buffers 0-8 (first plurality of ports) of fabric

access devices (FAD) 414, 416, and 418 that are coupled to port interface devices 0-7 (second plurality of ports) of port interface device (OCTOPID) groups 440, 442, 444, 446, 448, 450, and 452 via TAP multiplexers 426, 428, 430, 432, 434, and 436 as shown in Figure 4.

“Configuring the first switch to generate a first rate control message at the first switch and relay the first rate control message to a first local communications channel of the first switch” is anticipated by SWIP controller 305 of switch fabric 300 (first switch) of Figure 3 that monitors the congestion of the port interface devices and transmits a congestion rating (first rate control message) to the port interface devices as spoken of on column 16, lines 37-50.

“Configuring the first switch to perform a rate control function related to the second switch based on the first rate control message” is anticipated by SWIP controller 800 of Figure 8 containing congestion control module 840 that controls transmissions (rate control function) in light of detected congestion conditions (based on the first rate control message) as spoken of on column 15, lines 18-34.

Lastly, “wherein each of the first plurality of ports and the second plurality of ports is configured to perform switching and rate control functions” is anticipated by buffers 0-8 (first plurality of ports) of fabric access devices (FAD) 414, 416, 418 as well as port interface devices 0-7 (second plurality of ports) of port interface device (OCTOPID) groups 440, 442, 444, 446, 448, 450, and 452 that are configured to transmit and receive data (switching and rate control) controlled by SWIP controller 404 within the

switch fabric of Figure 4 as spoken of on column 15, lines 18-34 as well as column 16, lines 48-55.

Allowable Subject Matter

3. Claims **1-10 and 16-23** are allowable over the prior art of record.
4. Claims **12-15** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims **1-10 and 16-23**, these claims are allowable for the reasons indicated in the previous Office Action mailed 7/27/05.

Regarding claims **12-15**, these claims were previously rejected as being anticipated by *Wong*. However, as a result of the Pre-Appeal Brief conference held 5/1/07, it was determined that while *Wong* still anticipates claim **11**, *Wong* does not teach all of the limitations of dependent claims **12-15**. Specifically, it was determined that *Wong* does not teach “generating the first rate control message including data relating to the first link port being congested” as recited in claim **12**, as well as “generating the first rate control message comprising a HOL status notification relating to the first link port being congested” as recited in claim **13**.

The other cited prior art of record also fails to teach these limitations. Therefore, claims **12-15** are held objected to as being dependent upon rejected base claim **11**, but

would be allowable if rewritten in independent form including all of the limitations of base claim **11** and any intervening claims.

Response to Arguments

6. Applicant's arguments filed 3/9/07 regarding claim **11** in the "Pre-Appeal Brief Request for Review" have been fully considered but they are not persuasive.

Regarding claim **11**, Applicant argues that the FAD buffers 414, 416, and 418 of Wong do not equate to the "first plurality of ports" of this claim. Applicant further argues that a port of a switch is an interface on a switch to which other devices can be connected while a buffer is a temporary storage area, and follows that one skilled in the art would not equate the FAD buffers of Wong with the first plurality of ports because they perform different functions.

While it is agreed that a buffer is a temporary storage area, it is held that a buffer can be broadly interpreted to be an interface on a switch to which other devices can be connected. As shown in Figure 4 of Wong, the buffers 0-8 of each of FAD devices 414, 416, and 418, are coupled to Tap Mux devices 426-438 and communicate (interface) with these devices. These FAD devices are within a switch fabric. Therefore, giving a broadest reasonable interpretation of the claim language, it is held that the FAD devices of Wong function as buffers as well as a "port" providing connection to other devices.

Regarding claim **11**, Applicant also argues that there is no teaching or suggestion in Wong that the buffers 0-8 of fabric access devices (FAD) 414, 416, and 418 are configured to perform switching and rate control functions. Applicant further argues that

simply because a buffer is part of a switch does not mean that the buffer is automatically configured to perform switching and rate control functions.

However, these FAD buffers are a part of the switch fabric of Figure 4 and they are involved in the transmission and reception of data as well as congestion control information between SWIP controller 404 and port interface device (OCTOPID) groups 440, 442, 444, 446, 448, 450, and 452.

As Applicant noted, Wong discloses that each of the fabric access devices (FAD) 414, 416, and 418 includes a multiplexer 420, 422, 424 used to select a specific buffer that is to transmit or receive data. It is further stated on column 15, lines 18-34, how the SWIP controller receives buffer status information from the FAD buffers and determines which FAD buffers should have their contents transmitted. It is held that this constitutes a "switching function" as data is switched through a specific buffer.

Wong also discloses on column 16, lines 48-55, how the SWIP controller transmits a congestion rating to all port interface devices such that a determination can be made whether to transmit or discard data. As shown in Figure 4, SWIP controller communicates with port interface device (OCTOPID) groups via fabric access devices (FAD) 414, 416, 418 and TAP MUX devices 426-436. Therefore, it is held that the FAD buffers perform a "rate control function" of transmitting a congestion rating (regulates network congestion and packet dropping) from SWIP controller 404 to port interface device (OCTOPID) groups 440-452.

Therefore, it is held that Wong anticipates claim 11.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached at (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael J. Moore, Jr.
Examiner
Art Unit 2616

mjm *MM*


WING CHAN 7/6/07
SUPERVISORY PATENT EXAMINER